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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,541	02/14/2002	Mikko Puuskari	4925-177PUS	3914

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EXAMINER
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JUNTIMA, NITTAYA

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/980,541

Applicant(s)

PUUSKARI ET AL.

Examiner

Nittaya Juntima

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-10, 20, 27-28 is/are rejected.
- 7) ☒ Claim(s) 11-19, 21-26 and 29-43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/15/01.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1, 7, 19, and 20 are objected to because of the following informalities:
  - in claim 1, line 4, “being characterized by” should be removed in order to put the claim in a better form;
  - in claim 7, line 5, “further characterized by the steps of” should be removed to put the claim in a better form;
  - in claim 19, line 2, “GPRS” and  
line 4, “SNDPCP” should be spelled out to avoid any misinterpretation;
  - in claim 20, line 7, “characterized by” should be removed to put the claim in a better form.

Appropriate correction is required.

2. It is suggested that “adapted to ...” in claims 20-26 be changed to put the claims in a better form. For example, in claim 20, line 4, “adapted to detect” would be changed to “for detecting.” See MPEP §2106.

### *Specification*

3. The abstract of the disclosure is objected to because of the inclusion of legal phraseology, “said” at lines 3 and 7.

Correction is required. See MPEP § 608.01(b).

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-10, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art, “3<sup>rd</sup> Generation Partnership Project; Technical Specification Group Services and System Aspects, QoS Concept” (hereafter “3GPP”).

Regarding claims 7 and 20, 3GPP teaches a method for transmission of data packets in a packet data network, said method comprising the steps of:

detecting at least a delivery order attribute (Delivery order) as a parameter for transmission of data packets (a Delivery order which is part of the UMTS bearer service attributes must be detected, e.g. by the UMTS BS manager in the MT, CN EDGE, and the Gateway, as a UMTS bearer service is established, page 13, lines 9-17 of section 6.2.2.1, and page 17, lines 21 of section 6.4.2.1 -page 18, lines 1-4);

determining a traffic class (Traffic class) of the transmitted data packets (the Traffic class as part of the UMTS bearer service attributes must be determined in order for the UMTS to optimize the transport for that traffic type, page 17, lines 5-8 of section 6.4.2.1), and

processing the transmitted data packets dependent on the determined traffic class (optimizing the transport for that traffic type according to the specified Traffic class, page 17, lines 5-8 of section 6.4.2.1, see also Table 1 on pages 16-17).

In addition, 3GPP also teaches that the Delivery order is set to “y” for out-of-sequence is not acceptable or “n” for out-of-sequence is acceptable (page 17, lines 21 of section 6.4.2.1-page 18, lines 1-4).

Accordingly, 3GPP teaches the detecting, the detecting, determining, and processing steps. However, 3GPP fails to teach which step to be performed first, i.e. the step of deciding if the delivery order attribute is set is performed prior to carrying out the determining and processing steps as recited in the claims.

It would have been obvious to one skilled in the art at the time of the invention was made to modify the teaching of 3GPP to include the step of deciding, whether said delivery order attribute parameter is set; and if so perform the determining and processing steps as recited in the claim. Such modification is a decide choice and involves only arranging of the method steps such that if the Delivery order attribute is set to “y”, then the Traffic class would be determined and traffic would be processed accordingly. The motivation/suggestion to do so would have been to enable a packet processing device to allocate appropriate resources, such as buffer space and processing power, immediately after deciding that the delivery order attribute is set in order to enhance the robustness and efficiency of the system.

Regarding claim 8, 3GPP teaches if said delivery order attribute (Delivery order) is set, this indicates that the order of transmitted data packets is to be maintained (Delivery order is set to “y” for out-of-sequence is not acceptable, page 17, lines 21 of section 6.4.2.1-page 18, lines 1-4).

Regarding claim 9, 3GPP teaches if said delivery order attribute (Delivery order) is not set, this indicates that the order of transmitted data packets does not need to be maintained

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(Delivery order is not set to “y”, i.e. is set to “n” for out-of-sequence is acceptable, page 17, lines 21 of section 6.4.2.1-page 18, lines 1-4).

Regarding claim 10, 3GPP does not teach that the data packets are to be transmitted and forwarded to their destination immediately and irrespective of the traffic class.

However, since 3GPP points out that the Delivery order is not associated with the traffic class (page 18, lines 2-4), therefore, it would have been obvious to one skilled in the art to modify the teaching of 3GPP to include that the data packets are to be transmitted and forwarded to their destination immediately and irrespective of the traffic class when the Delivery order is not set to ‘y’ (i.e. the Delivery order is set to “n” for out-of-sequence is acceptable, page 17, lines 21 of section 6.4.2.1-page 18, lines 1-4). The motivation/suggestion to do so would have been to enable out-of-sequence SDUs to be dropped as specified, thereby reducing transmission/processing delay.

6. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art, “*3<sup>rd</sup> Generation Partnership Project; Technical Specification Group Services and System Aspects, QoS Concept*” (hereafter “3GPP”) in view of another admitted prior art, the Background of the Invention section of the specification.

Regarding claims 27 and 28, although 3GPP teaches the UMTS control plane with MT, CN EDGE, and the Gateway (page 13, lines 1-17 of section 6.2.2.1) and UMTS-GPRS Interworking relation (page 24, section 9 and page 25, lines 1-6 of section 9.1.2), 3GPP fails to explicitly teach that the network element is a RNC in controlling the transmission of data packets in a packet data network in downlink direction and a GGSN in uplink direction as recited in the claims.

However, the Background of the Invention section of the specification teaches that the RNC controls the forwarding of data packets in the downlink direction, while in the uplink direction the GGSN controls the forwarding of data packets to external network as the destination (page 3, lines 7-10).

Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to include the RNC and the GGSN into the teaching of 3GPP as recited in the claims. The motivation/suggestion to do so would have been to provide the connection between the UMTS network and the external network via the GGSN as taught by the Background of the Invention section of the specification (page 2, lines 23-page 3, lines 5).

#### ***Allowable Subject Matter***

7. Claims 1-6 are allowed. The prior art alone or in combination fail to teach or make obvious on the following when considered in combination with other limitations in the claim: setting the delivery order attribute based on the mapping information and in the case where the predetermined protocol type is decided to be not present as recited in independent claim 1.

8. Claims 11-19, 21-26, and 29-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima  
November 9, 2005

*NJ*

  
RICKY NGO  
PRIMARY EXAMINER  
11/10/05